

Dr. Duke's Phytochemical and Ethnobotanical Database

Chemicals Found in *Ferula assa-foetida*

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	1-(1-METHYL-THIO-PROPYL)-1-PROPENYLDISULFIDE	Gum	--	--		
0	1-(METHYLTHIO)-PROPYL-1-PROPENYL-DISULFIDE	Gum	--	--		
0	1-(METHYLTHIO)-PROPYL-CIS-1-PROPENYL-DISULFIDE	Essential Oil	190000	380000		
0	1-METHYLPROPYL-1-PROPENYL-DISULFIDE	Gum	--	--		
0	1-METHYLPROPYL-3-(METHYLTHIO)-2-PROPENYL-DISULFIDE	Gum	--	--		
0	2-BUTYL-3-METHYL-THIO-ALLYLDISULFIDE	Gum	--	--		
0	2-BUTYL-TRANS-1-PROPENYL-DISULFIDE	Essential Oil	110000	450000		
0	2-BUTYLMETHYL-DISULFIDE	Gum	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	2-BUTYLMETHYL-DISULFIDE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2-BUTYLMETHYL-TETRA SULFIDE	Gum	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	2-BUTYLMETHYL-TRI SULFIDE	Gum	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	2-BUTYLMETHYL-TRI SULFIDE	Essential Oil	--	--		
0	2-BUTYLPROPENYL DISULFIDE	Gum	--	--		
0	5-ALPHA-(3,4-DIACETOXYBENZOYL)-9-BETA-ANGELOXY-JAESCHKEANADIOL	Rhizome	--	190		
0	5-ALPHA-(3-METHOXY-4-HYDROXYBENZOYL)-JAESCHKEANADIOL	Rhizome	--	1200		
0	5-ALPHA-(4-HYDROXYBENZOYL)-9-BETA-ANGELOXY-JAESCHKEANODIOL	Rhizome	--	260		
0	5-ALPHA-(P-HYDROXYBENZOYL)-JAESCHKEANADIOL	Rhizome	--	1500		
0	5-HYDROXYUMBELLIPRENNIN	Gum	--	363		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	8-ACETOXY-5-HYDROXYUMBELLIPRENIN	Gum	--	175		
0	8-HYDROXYUMBELLIPRENIN	Gum	--	1550		
0	9-BETA-HYDROXY-JAESCHKEANADIOL	Rhizome	--	470		
0	9-HYDROXYUMBELLIPRENIN	Gum	--	388		
0	ALLYLPROPYL-SULFIDE	Gum	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
11	ALPHA-PHELLANDRENE	Essential Oil	--	--		
28	ALPHA-PINENE	Seed Essent. Oil	--	14300	-0.6432551188420427	
28	ALPHA-PINENE	Essential Oil	--	--		
28	ALPHA-PINENE	Gum	--	143000		
23	ALPHA-TERPINEOL	Seed Essent. Oil	--	127100	0.07775930700042463	
0	ARABINOSE	Gum	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ASACOUMARIN-A	Resin, Exudate, Sap	--	30		
0	ASACOUMARIN-A	Gum	--	--		
0	ASACOUMARIN-B	Gum	--	--		
0	ASACOUMARIN-B	Resin, Exudate, Sap	--	62		
0	ASADISULFIDE	Gum	--	--		
0	ASADISULFIDE	Resin, Exudate, Sap	--	47		
0	ASARESINOTANNOID-A	Gum	--	--		
0	ASARESINOTANNOID-B	Gum	--	--		
0	ASARESINOTANNOL	Gum	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	ASARESINOTANNOL-A	Gum	--	--		
0	ASARESINOTANNOL-B	Gum	--	--		
0	ASH	Plant	15000	100000	-0.3796129196407384	
0	ASSAFOETIDIN	Gum	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
10	AZULENE	Root	--	--		
0	BADRAKEMIN	Gum	--	1750		
0	BADRAKEMIN-ACETATE	Gum	--	1500		
0	BASSORIN	Gum	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	BETA-PINENE	Essential Oil	--	--		
0	BORNEOL-ACETATE	Seed Essent. Oil	--	93300	1	
0	BUTYLPROPYNYL-DISULFIDE	Essential Oil	400000	450000		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	BYAKANGELICOL	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	CADINENE	Essential Oil	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	COLADONIN	Gum	--	1250		
0	CONFEROL	Root	--	10		
3	CYNAROSIDE	Fruit	--	--		
0	DI-2-BUTYL-METHYL-TRISULFIDE	Essential Oil	--	--		
0	DI-2-BUTYLDISULFIDE	Essential Oil	--	--		
0	DI-2-BUTYLtetrasulfide	Essential Oil	--	--		
0	DI-2-BUTYLTRISULFIDE	Essential Oil	--	--		
26	DIALLYL-DISULFIDE	Essential Oil	--	--		
0	DIALLYL-SULFATE	Essential Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
25	DIALYL-SULFIDE	Gum	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
25	DIALYL-SULFIDE	Essential Oil	--	--		
0	DIMETHYL-TRISULFIDE	Essential Oil	--	--		
0	EO	Gum	30000	170000	-0.5346418368427087	
0	EPISAMARCANDIN	Root	--	9		
0	FARNESFEROL	Gum	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	FARNESFEROL-A	Gum	--	--		
0	FARNESFEROL-B	Gum	--	--		
0	FARNESFEROL-C	Gum	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	FARNESIFEROL-A	Gum	--	6000		
0	FARNESIFEROL-B	Root	--	200		
0	FARNESIFEROL-B	Gum	--	--		
0	FARNESIFEROL-C	Root	--	19		
0	FARNESIFEROL-C	Gum	--	16666		
0	FEROCOLICIN	Gum	--	--		
0	FERUGININ	Rhizome	--	90		
61	FERULIC-ACID	Gum	--	--		
61	FERULIC-ACID	Essential Oil	--	--		
61	FERULIC-ACID	Resin, Exudate, Sap	13000	13000		
0	FERULIC-ACID-ESTERS	Resin, Exudate, Sap	--	600000		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp.
1	FOETIDIN	Root	--	500		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	FOETIDIN	Gum	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	FOLIFERIDIN	Gum	--	500		
1	GALACTOSE	Gum	--	--		
1	GALBANIC-ACID	Gum	--	20600		
0	GERANIOL-ACETATE	Essential Oil	--	--		
0	GERANIOL-ACETATE	Seed Essent. Oil	--	77100	1.385249454425996	
7	GLUCOSE	Gum	--	--		
4	GLUCURONIC-ACID	Gum	--	--		
0	GUM	Plant	250000	250000	1.4490023061725688	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	GUMMOSIN	Root	--	769		
0	GUMMOSIN	Gum	--	1500		
0	ISOBUTYLPROPANYLDISULFIDE	Essential Oil	--	--		Lawrence Review of Natural Products, Jan-93.
15	ISOPIMPINELLIN	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	JAESCHKEANADIOL	Rhizome	--	6100		
0	KAMOLONOL	Gum	--	1750		
0	KAMOLONOL	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	KARATAVICINOL	Gum	--	3000		
0	L-ARABINOSE	Gum	--	--		
27	LINOLEIC-ACID	Seed	--	128000	0.17888309199536606	
78	LUTEOLIN	Fruit	--	--		
0	MOGOLTADONE	Gum	--	--		
6	MYRISTIC-ACID	Seed Essent. Oil	--	212300	1	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
18	OLEIC-ACID	Seed	--	53000	-0.5434090926367003	
0	OXYDASE	Plant	--	--		
0	PETROSELINIC-ACID	Seed	--	765000	0.9605421579988822	
4	PHELLANDRENE	Seed Essent. Oil	--	54800		
4	PHELLANDRENE	Gum	--	64000		
0	POLYANTHIN	Gum	--	--		
0	POLYANTHININ	Gum	--	1500		
0	PROPENYL-SULFIDE	Gum	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	RESIN	Plant	400000	640000	3.071537849584625	Tucker, A. O. and Debaggio, T. 2000. The Big Book of Herbs. Interweave Press, Inc. Loveland, CO. 688 pp.
0	RHAMNOSE	Gum	--	--		
0	SAMARCANDIN-ACETATE	Gum	--	4000		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	SEC-BUTYL-PROPYL-DISULFIDE	Resin, Exudate, Sap	4500	7650		Chemical Constituents of Oriental Herbs (3 diff. books)
0	SEC-BUTYL-PROPYL-DISULFIDE	Essential Oil	--	--		
0	SEC-BUTYL-PROPYL-DISULFIDE	Essential Oil	--	--		
22	UMBELLIFERONE	Gum	--	--		
22	UMBELLIFERONE	Essential Oil	--	--		
0	UMBELLIFERONE-ETHERS	Gum	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	UMBELLIPRENNIN	Root	--	23		
0	UNDECYL-SULFONYL-ACETIC-ACID	Resin Essent. Oil	--	188000		
9	VALERIC-ACID	Essential Oil	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	VANILLIN	Plant	600	600		